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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,687	04/11/2001	Thomas Hamm	US20-00-1939	1882

7590

08/14/2002

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EXAMINER

LEE, SEUNG H

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/832,687

Applicant(s)

HAMM ET AL.

Examiner

Seung H Lee

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Prelim. Amdt./Amendment

1. Receipt is acknowledged of the Preliminary Amendment filed on 3 July 2001.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claims 5 and 16: "**about**" is indefinite and vague in its relationship to the thickness of the flexible structure (i.e. what does it mean by reciting "about 1 micrometer" and "about 0.1 millimeter"?).

Appropriate correction and clarification is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 -19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunselman et al (US 5,436,723)(hereinafter referred to as 'Kunselman') in view of Crawford et al (US 5,343,289)(hereinafter referred to as 'Crawford').

Kunselman teaches a spectro-analytical system comprising an imaging device or structure (8) having a reflective grating device (16) for imaging a light or an incident beam onto the photo-multiplier sensors (20A-H) in which serves as photodiode line disposed along Rowland circle (22) (see Fig. 1; col. 2, line 67- col. 3, line 27).

However, Kunselman fails to teach or fairly suggest that the system includes a support mount element having a shape corresponding to the focal surface.

Crawford teaches a spectrometer system having detector (22) having a shape of the focal surface in which serves as support element along the Rowland circle (18), a focal curve structure (24) with capability of receiving a photo multiplier tube in which serve as a flexible structure to receive a photosensitive element, a sensor or photo multiplier (22) is bonded means fixed or mounted by tube holder (53), socket holder (54), cleat (55) and screws (56) to bracket flange (58), sensors having two ends or points of the sensor array (22-1 and 22-N) located on the different edge of the array (see Figs. 1 and 2; col. 4, line 6- col. 5, line 45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Crawford to the teachings of Kunselman in order to provide an improved and an enhanced means defining the location of the sensors to improve the readability of the spectrometer. Moreover, such

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modification would provide a dispersing means by relocating the sensors to different location on the structure, and therefore an obvious expedient.

Although, Kunselman as modified by Crawford fails to teach or fairly suggest that the thickness of the flexible structure range from 1 micrometer to 0.1 millimeters, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the thickness of the structure of Crawford to adjust the size of the spectrometer, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), failing to provide any unexpected results.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure;

Machler [US 6,005,661], Beranek et al [US 5,493,393], Hughes et al [US 3,532,429], Talmi [US 4,259,014], Curtiss [US 5,856,870], Brooks et al [US 5,963,320], Korendyke [US H1152] disclose a spectrometer system,

Horwitz et al [US 5,424,827], Harnly et al [US 5,018,856], Kimura et al [US 4,647,202] disclose an optical system for separating spectra,

Chen et al [US 6,256,090] discloses a fiber optic measurement system having a flexible body.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Seung H. Lee whose telephone number is (703) 308-

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5894. The examiner can normally be reached on Monday to Friday from 7:30 AM to 4:00 PM.


If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax-phone number for this group is (703) 308-5841 or (703) 308-7722.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.lee@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.


Seung H. Lee
Art Unit 2876
August 9 2002


MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800